

LINE SIDE VFD FUSED DISCONNECT SWITCH

VFD

NON-FUSIBLE MOTOR DISCONNECT SWITCH

FPU

UNISTRUT MOUNTED
DIRECTLY TO WALL OR
OTHER SURFACE (TYP)

ALL CONDUITS SHOULD BE
SIZED ACCORDINGLY WITH
NECESSARY FITTINGS

INCOMING POWER SUPPLY

FITTING INSTALLED 12" BELOW PANEL TO
TRANSITION BETWEEN RIGID METAL CONDUIT
AND LIQUID-TIGHT FLEXIBLE METAL CONDUIT
WITH EMI BRAIDED SHIELDING (TYP)

MOTOR DISCONNECT SWITCH
STAND (TYP)

THE CONTROL CONDUIT(S)
SHOULD CARRY THE LOAD
SIDE SWITCH SENSING WIRE
BACK TO THE VFD. REFER
TO LBNL MASTER
SPECIFICATION SECTION
262923.2.3.E FOR DETAILS.

EQUIPMENT PAD (TYP)

LIQUID-TIGHT FLEXIBLE METAL
CONDUIT WITH EMI BRAIDED
SHIELDING MAY BE USED
FOR UP TO 3'-0" OF
CONTINUOUS CONDUIT
LENGTH TO ACCOUNT FOR
EQUIPMENT SHIFT (TYP)

SHEET NOTES:

1. THIS ELEVATION AND SCHEMATIC REPRESENT THE MINIMUM COMPONENTS AND REQUIREMENTS FOR MOTOR WIRING AND OPERATION AT LAWRENCE BERKELEY NATIONAL LABORATORY, AND IS DESIGNED TO ACCOMMODATE ALL VARIETY OF EQUIPMENT TYPES AND SELECTIONS THAT MEET THESE REQUIREMENTS. FOR MORE DETAILED REQUIREMENTS REGARDING INSTALLATION AND OPERATION, REFER TO THE LBNL MASTER SPECIFICATIONS, PARTICULARLY SECTION 262923.
2. ENCLOSURES SHALL BE RATED NEMA-1 FOR DRY LOCATIONS AND NEMA-3R FOR DAMP AND WET LOCATIONS.

KEYED NOTES:

- 1 IF LINE SIDE VFD FUSED DISCONNECT IS NOT WITHIN CLEAR SIGHT OF MOTOR, PROVIDE A NON-FUSIBLE MOTOR DISCONNECT SWITCH, LOCKABLE IN THE OPEN POSITION, WITHIN CLOSE VICINITY OF MOTOR IN ACCORDANCE WITH NEC ARTICLE 110.26, WORKING SPACE WIDTH, HEIGHT, AND DEPTH REQUIREMENTS.
- 2 LINE SIDE VFD FUSED DISCONNECT MUST BE LOCKABLE IN THE OPEN POSITION. LOCATE LINE SIDE VFD FUSED DISCONNECT WITHIN CLEAR SIGHT OF VFD. VFD UNITS WITH A LINE SIDE DISCONNECT INTEGRATED INTO THE UNIT QUALIFY AS LONG AS THE LINE SIDE DISCONNECT IS LOCKABLE IN THE OPEN POSITION.
- 3 CONDUIT TO AND FROM VFD MUST BE BOTTOM ENTRY PER VFD DESIGN. CONDUIT MAY BE ROUTED OVERHEAD IF NECESSARY UNLESS OTHERWISE NOTED.

CONSTRUCTION DETAILS & DESIGN GUIDELINES LBNL ELECTRICAL STANDARDS VFD LAYOUT

UNIVERSITY OF CALIFORNIA LAWRENCE BERKELEY NATIONAL LABORATORY
FACILITIES DIVISION

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